CLAREMONT CENTER for the MATHEMATICAL SCIENCES

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Extremal Graph Theory and its Applications

by

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ABSTRACT

In a typical extremal problem one wants to determine maximum cardinality of discrete structure with certain prescribed properties. Probably the earliest such result was obtained 100 years ago by Mantel who computed the maximum number of edges in a triangle free graph on n vertices. This was generalized by Turan for all complete graphs and became a starting point of Extremal Graph Theory. In this talk we survey several classical problems and results in this area and present some interesting applications of Extremal Graph Theory to other areas of mathematics. We also describe a recent surprising generalization of Turan's theorem which was motivated by a question in Computational Complexity.

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Wednesday, November 11, 2009, at 4:15pm

Millikan 134, Pomona College

Refreshments served at 3:45 p.m.

Harry Mullikin Room, Millikan 209

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The dinner will be hosted by Prof. Lenny Fukshansky
If interested in attending, call ext. 70014